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EDITORIAL COMMENT AND NEWS NOTES

CHILDHOOD EDUCATION CONFERENCE

"Safeguarding Our Human Resources, the Children," has been chosen as the theme of the eighteenth annual state study conference of the California Association for Childhood Education to be held in Long Beach, November 21 and 22, 1941. The program includes general sessions with eminent speakers, workshops, luncheons, school exhibits, and a harbor trip.

Mrs. Gladys Potter, Supervisor of Kindergarten and Primary Education, Long Beach Public Schools, and Chairman of Workshops, has carried out the theme of the conference in planning the work to be undertaken by the following study groups:

Safeguarding the Opportunities for Slow Learners to Realize Their Full Potentialities, Faith Smitter, Educational Psychologist, Division of Research and Guidance, Los Angeles County Schools, *Leader*.

Safeguarding Children's Right to Democratic Living in the Classroom, Ethel I. Salisbury, Professor of Education, University of California at Los Angeles, *Leader*.

Safeguarding the Maximum Growth of Gifted Children, Cora Lee Danielson, Assistant Supervisor of Education of Exceptional Children, Los Angeles Public Schools, *Leader*.

Safeguarding Children's Interest in Books, Gladys English, Department Librarian, Work with Children, Los Angeles Public Library, *Leader*.

Safeguarding the Emotional Life of the Intermediate Grade Child, Helen Heffernan, Chief, Division of Elementary Education, State Department of Education, *Leader*.

Safeguarding Children's Experiences in the Field of Music, Mrs. Beatrice Krone, Music Department, University of Southern California, *Leader*.

Safeguarding Children from Misunderstanding between Home and School, Dr. Gertrude Laws, Education for Women, Pasadena Public Schools, *Leader*.

Safeguarding the Mental Health of Children, Mrs. Sybil K. Richardson, Counsellor, University Elementary School, University of California at Los Angeles, *Leader*.

Safeguarding Children's Growth by Wise Use of Evaluation Techniques, Mrs. Fannie Shaftel, Curriculum Co-ordinator, Pasadena Public Schools, *Leader*.

Safeguarding the Physical Health of Children, Arthur R. Timme, M. D., Psychologist, Los Angeles Public Schools, *Leader*.

Safeguarding Children's Experiences in the Field of Art, Mrs. Katherine Page Porter, Supervisor of Art, Beverly Hills Public Schools, *Leader*.

Safeguarding Children's Growth Through Recognition of Readiness for Learning, Helen Sue Read, University Elementary School, University of California at Los Angeles, *Leader*.

Workshop summaries of the safeguards discussed in each group will be prepared for all who register for the conference. Others may secure copies for a nominal sum from Dr. Bernice Baxter, Oakland Public Schools, Oakland, who is director of publicity for the conference.

FOREST CONSERVATION BULLETIN

An illustrated 70-page bulletin, *New Forest Frontiers*, Miscellaneous Publication No. 414, April, 1941, Forest Service, United States Department of Agriculture, has just been issued. The bulletin tells the story of the use and misuse of the nation's resources. The central thought of this story is that the wants and needs of man are inherently dependent upon wise use of the basic resources of soil, water, forests, and forage. The illustrations are in the form of photographs, diagrams, and graphs.

This bulletin should be available for reference to all study groups. It is important during a period of preparation for national defense that all citizens understand that the life of the nation rests upon a guarantee that the great natural resources of the nation are used wisely.

This publication may be secured free of charge on request from the United States Forest Service, 760 Market Street, San Francisco.

ELEMENTARY SCHOOL PRINCIPALS YEARBOOK

The thirteenth yearbook of the California Elementary School Principals Association, *Elementary School Environment and the Modern Curriculum*, has just come from the printer. Helpful modern practices are discussed in this publication, and several innovations are proposed. These suggestions relate to the school library, guidance, perceptual and visual learning, speech correction, curriculum, for the teaching of art, science, spelling, writing, arithmetic, physical education, and other matters touching the welfare of the elementary school child.

Several pages of building plans prepared by the Division of Schoolhouse Planning, California State Department of Education, emphasizing environment and showing facilities for community use are also included.

The contributions to the Yearbook are an evidence of intellectual enthusiasm and fine professional growth of the group of California principals. The book is an outstanding number of the series and represents a high degree of achievement among educational publications in California.

Copies may be secured from Sarah L. Young, Parker School, Oakland, for \$1.00 each.

HEALTH AND PHYSICAL EDUCATION CONFERENCE

The California Association for Health, Physical Education, and Recreation has recently announced the dates of its annual conference as March 30 to April 1, 1942, at Sacramento. The officers for the California Association for Health, Physical Education, and Recreation for 1941-1942 are: Louise Cobb, University of California, Berkeley, President; Walter Scott, Long Beach Public Schools, President-Elect; Gloyd Wetherill, San Diego Public Schools, Vice-President, Health; Charles Brown, Beverly Hills High School, Vice-President, Physical Education; C. C. Christiansen, Santa Barbara Public Schools, Vice-President, Recreation; W. H. Orion, California State Department of Education, Sacramento, Secretary; William C. Sim, Sacramento Junior College, Treasurer.

CURRICULUM MATERIALS DEVELOPED IN CALIFORNIA PUBLIC SCHOOL SYSTEMS

A wealth of valuable curriculum materials have been developed through the efforts of teachers and curriculum directors in the city and county school systems of the state. These materials may be used either as suggestions for similar work or as the basis for adaptations of similar material to local situations. A list of units of work and curriculum bulletins is given here. Copies of the various items described in the list which follows are available from the office of the county or city school system in which they were developed.

Water Unit. Water in all its forms, accompaniments, connotations—rain, wind, clouds, fountains, mist, waterfalls, raindrops, dewdrops, brooks, waves, showers, fog, and frost are dealt with in poetry and prose in a mimeographed bulletin prepared for the children of Colusa County.

This unit has been organized to help children realize the dependence of all life upon water, to discover the part that water has played in the development of our civilization, to be alert to the need for conserving water and preventing erosion, and to appreciate the recreational opportunities which bodies of water afford.

Beside the many poems and prose selections which are the work of well-known writers, the booklet contains a list of corollary reading. Under the title, "Experiences," a number of experiments are suggested dealing with evaporation, temperatures, relation of moisture to cause of cyclones, and the like.

Curriculum Study Program. The teachers of Tulare County have been engaged during the past year in a co-operative curriculum study program. Especially noteworthy are two mimeographed bulletins entitled "Grade Expectances in Art," and "Grade Expectances in Music," both of which are the products of county committees on art and music working under the direction of Nettie Ingram, Supervisor of Art, and Barbara Borden Jameson, Music Supervisor. The art bulletin

outlines general and specific objectives for each grade level, including statements relative to pupil attainments in graphic art experiences, construction, and appreciation.

Social Studies Teachers Guide. A committee of teachers of San Mateo County, after a long period of study and research, has prepared a "Guide to the Social Studies" for city and rural elementary schools of San Mateo County under the leadership of Eleanor Freeman Collins, Director of Curriculum for the county.

The teachers have done a scholarly piece of work, annotating the publication and documenting it with citations from authorities in the various fields. A comprehensive bibliography is included.

Materials for Rural Teachers. Two pamphlets of considerable interest have come from the office of County Superintendent of Schools, E. L. Hiteman, Imperial County: "English Suggestions for Upper Grades for the Rural Schools of Imperial County," prepared by the County English Committee, and "Interesting Experiences of Rural Teachers in Imperial County." Both are rich in suggestions for helping the children of that area.

Reading Course of Study. "An Elementary Reading Course First Through Eighth Grades, Course of Study Outline," has been prepared for the Stockton City Unified School District by the Elementary Reading Committee under the direction of Leo B. Baisden, Deputy Superintendent of Schools.

The course of study shows a progressive attitude on the part of curriculum workers by attempting to unite what is good of the old with what is most important in the present. The innovations that occur in the course of study are supported by the findings of reputable research workers in the field of education.

An excellent bibliography for each section of the course of study is appended.

CALIFORNIA CONSERVATION CONFERENCE

The California Conservation Council announces its second annual conference for October 9-11 at the Sonoma Mission Inn. The conference will follow the plan of the one held at Asilomar in 1940, when a program was arranged around the contributions of outstanding leaders in conservation, agriculture, forestry, and education on the wiser utilization of California's natural resources.

AMERICAN SCHOOL ADMINISTRATORS MEETING IN SAN FRANCISCO

The American Association of School Administrators has selected San Francisco as the setting for its seventy-second annual meeting, February 21-26, 1942. California educators from the West and Pacific Coast will find these sessions convenient and accessible. Several professional educational organizations are canceling meetings of their own organizations in order to arrange for the attendance of members at the Conference of Administrators.

BIBLIOGRAPHY ON NATIONALITY GROUPS

A mimeographed publication "Selected Bibliography on National Groups with Special Reference to Problems of the American Born in California" has been prepared by the Division of Elementary Education of the California State Department of Education. Copies of this material may be obtained from the Division.

PI LAMBDA THETA AWARDS FOR RESEARCH

Pi Lambda Theta National Association of Women in Education has announced three awards for research from the fund known as the Ella Victoria Dobbs Fellowship. The awards of \$250 each will be granted on or before September 15, 1943 for significant research studies in education. A study may be submitted by any person of graduate standing or by any member or group of members of Pi Lambda Theta whether or

not engaged at present in educational work. A chapter of Pi Lambda Theta will also be eligible for the awards. Information may be obtained from Marion Anderson, Room 212 Statler Building, Boston, Massachusetts.

NATIONAL DEFENSE PAMPHLETS

Six pamphlets in the national defense series being issued by the United States Office of Education are now off the press and available to the public schools during the fall and winter term. More than twenty pamphlets will be included in this series. The following titles are now available:

1. What the Schools Can Do, Pamphlet No. 4
2. Home Nursing Courses in High Schools, Pamphlet No. 9
3. Hemisphere Solidarity, Pamphlet No. 13
4. Education Under Dictatorships and in Democracies, Pamphlet No. 15
5. How Libraries May Serve, Pamphlet No. 17
6. Democracy in Summer Camp, Pamphlet No. 23

Other publications in this series which are now in preparation or in press will deal with such subjects as education in democracy, guidance problems, nutrition education, rural youth, and Latin-American relationships.

Orders for these pamphlets should be sent to the Superintendent of Documents, Washington, D. C. The price for a single copy of the pamphlets issued to date is fifteen cents. A special 25 per cent discount is given on 100 copies or more sent to one address.

BIBLIOGRAPHY ON CONSERVATION

Choose a Book About Things to Be Conserved, United States Office of Education Leaflet No. 60, is an illustrated annotated bibliography of books "about things that nature provides for our use and pleasure"—forests, rocks, minerals, soils, insects, snakes, wild flowers. The material was compiled by Helen K. Mackintosh and Effie G. Bathurst.

The leaflet may be secured for five cents from the Superintendent of Documents, Washington.

THE GIFTED CHILD: A REPORT OF PRACTICES IN CALIFORNIA CITIES

FRANCIS L. DRAG, *Assistant Chief, Division of Elementary Education,
California State Department of Education*

Education in a democratic society is a public responsibility, a responsibility which must insure the fullest development of each member of society for maximum individual and social good. Democratic living recognizes the dignity and worth of the individual, the use of intelligence in solving problems, and the fact that group responsibilities must be shared. Obviously each child has a place and a responsibility in this system. He must learn to do his best in all situations as well as learn to assume his just share of community responsibility. He must respect others and in turn be respected by them. He may become leader or follower, according to the situation in which he is placed, for democracy requires that the individual be able to adjust himself to changing conditions. In some societies there are few leaders and many followers; in a democratic society everyone is to some degree a follower, and anyone who is capable may lead. Leadership is an inherent democratic privilege and responsibility. Great potential leadership qualities exist in many individuals. It is the business of education to discover, nourish, and develop leadership qualities in children. From the ranks of the gifted has come a large measure of the creative leadership of the world. It is the unique responsibility of our free public educational system to assist each member of society, and especially those who possess unusual endowments, to full development.

IDENTIFYING THE GIFTED

Who are the gifted? How may they be identified? How shall they be guided to assume their full responsibility in a democratic society? These and other similar queries come

from those who are genuinely interested in those children in our schools who possess extraordinary ability. There are numerous definitions for identifying the gifted. To some the meaning is narrowly conceived as superior mental ability, the child with the high IQ—125, 130, 140, or higher, according to different authorities. Such a concept of the gifted child describes him as one who is intellectually gifted, "one who excels his fellows to a marked degree in abstract intelligence."¹ A somewhat broader definition of the gifted child is "the child who shows in exceptionally high degree the ability to work with ideas."² A still more inclusive definition is that which describes the gifted as "those youngsters who give promise of creativity of a high order."³ Certainly for practical educational purposes a broad conception of the term is needed. Education is concerned with the intellectually superior child, with the child who has unusual talent in music, art, drama, or manual dexterity as well as with the individual who demonstrates outstanding qualities of leadership. In short, education is concerned with all the potentialities for individual development possessed by all children, and therefore, must recognize endowment in its many manifestations.

The instruments by which unusual ability is determined must be those which will cover a wide range of talents, aptitudes, and endowments. The intelligence test alone can not discover all of the gifted, although it is considered one of the most effective measures. Other measures extremely useful in this quest are those which reveal significant traits and abilities to be found outside the realm of mental capacity. They consist to a large degree in careful observation by teachers and experts in such special fields as art and music. Decisions concerning those who are talented should be based on actual evidence which results from painstaking effort devoted to the keeping of cumulative records of individual development over a period of years.

¹ Herbert A. Carroll, "Intellectually Gifted Children," *Teachers College Record*, XLII (December, 1940), 212.

² Edward L. Thorndike, "Problems of Identification, Description, and Development of the Gifted," *Teachers College Record*, XLII (February, 1941), 402.

³ Paul Witty, "Some Considerations in the Education of Gifted Children," *Educational Administration and Supervision*, XXVI (October, 1940), 513.

THE PROBLEM OF GROUPING

There is divided opinion and practice in the grouping of gifted children for instructional purposes. In certain large centers of population it is believed that only through segregation can the potential qualities of intelligence, creative genius, and leadership be kept from lying dormant or only partially developed. On the other hand, there are those who believe that not only do these qualities flower fully in the unsegregated group, but that the normal social attitudes, appreciations, and understandings so essential to those in whose hands should rest important leadership responsibilities can be fully developed only if the child has opportunity for normal living and association as a member of a heterogeneous group. The proponents of segregation and homogeneous grouping point out that such a procedure has the following advantages:

1. Provides the best opportunity for the child to work at the level of his ability.
2. Prevents such bad habits as wasting time, carelessness, and loss of interest.
3. Permits adaptation of schoolwork to special aptitudes and interests.
4. Helps to insure normal progress through the grades.
5. Prevents dislike for school and social maladjustment, and helps child to exert his best effort because of the challenge from his peers.
6. Brings out definite leadership qualities.
7. Permits use of special materials and methods.
8. Enables selection of specially qualified teachers.
9. Insures higher standards of achievement.

On the other hand, the advocates of heterogeneous grouping maintain the following advantages for this method of organization:

1. Provides fuller opportunity for the gifted child to develop his capacity for leadership in the normal unselected group.

2. Develops broad-mindedness and social responsibility.
3. Provides the only truly democratic relationships; prevents tendency of special classes to produce an intellectual aristocracy.
4. Prevents community friction.
5. Creates a situation in which the gifted can stimulate others to do better.

The above summary of the principal advantages of each method demonstrates that little is to be gained from such generalizations, but that those genuinely concerned with the best possible direction of the learning situation for gifted children will study the needs of these individuals in terms of the purposes of education, the total program of the school system to which they belong, and the children's inherent possibilities, and build thereon.

MODERN CONCEPT OF EDUCATIONAL PURPOSE

The function of education is to meet the needs and potentialities of the individual in order to equip him to contribute most effectively to a democratic society. The total program of education must be built to provide each individual the opportunity to develop not only his unique aptitudes and interests, but must also help him to gain an understanding of contemporary affairs and a growing sense of social responsibilities.

The educational program for gifted children especially, as well as for the less gifted, will be designed to contribute to the following purposes:

1. Provide a flexible course of study with varied activities to help the child develop to his fullest, mentally, socially, emotionally, and physically.
2. Give the child an acquaintance with the social and economic aspects of his environment and their wider relationships.
3. Provide for the use of many kinds of materials and equipment such as books, films, pictures, paint, clay, blocks, tools, building materials, science equipment, and the like.

4. Insure that fields are opened wherein the child will be stimulated to create, to solve problems, to lead, to follow, to express himself, to appreciate, and to work; provide complete records of individual aptitudes, interests, needs, achievements, and abilities in order to guide the child in his development.

The curriculum for the gifted child will be such as to provide a rich background of experience based upon his needs and abilities. It will stimulate independent thinking and the use of the scientific method. It will provide generously for the expression of creativity. It will eliminate all unnecessary routine and drill from the individual's work program and at the same time hold to high standards of accomplishment. And with all this it will painstakingly guide the child's experiences and associations to insure the formation of sound character, a wholesome regard for his fellow beings, and a deep consciousness of the social obligations he faces as a member of a democratic society.

It is important to note that the bulk of the criticisms directed against the heterogeneous grouping of children of ability has centered around those practices and problems inherent in the old school—the stereotyped, lock-step, subject-centered, assignment-study-recitation procedure, a pattern to which all conformed. There is no place for such a program in the present-day accepted philosophy of education which purposes to educate for democratic living.

In the subject-centered school there is little opportunity for flexibility, for capitalizing upon individual aptitudes and abilities, and for eliminating nonessentials, needless drill, or deadly repetition. There is small provision for guidance in developing leadership, in helping pupils to think and work through problems, to explore, to create, and withal to build social understandings in normal situations.

In the modern school, account is made for individual need, for democratic living, and the utilization of community resources in the solution of individual and group problems in many areas of living. Such an area, illustrative of what can

be done for the gifted child as a member of a normal social group, is found in a seventh-grade unit on radio. The children became concerned with the use of radio in their daily living. In the course of their work they wanted answers to questions about the effect of radio on their living, on their eating habits, on amusements and recreation, on their conversation, their reading, on their knowledge of current affairs, on their family relations. They wanted to determine who had radios, their favorite programs, how the radio was shared. Some were interested in the mechanics of radio, others in broadcasting techniques, and still others in the history of the development of radio.

As a result of their manifold interests and needs, the group used numerous books and other materials, ranging from simple to difficult content. They visited a broadcasting station for the purpose of dramatizing a play they had created, as well as becoming acquainted with the techniques of radio broadcasting. They studied speech—voice, breathing, diction. Committees were set up to explore the various areas of interest. A questionnaire and survey blanks were prepared for determining the home use of radio. Conferences were held with parents, radio directors, and performers. Results were checked, tabulated, and interpreted. Simple radio sets were constructed. As a climax the group broadcast from a script they had prepared entitled "Wonderful Radio." The unit was rich in materials related to a variety of interests, needs, and abilities. It offered related experiences in reading, language arts, and arithmetic. It cared for special interests in science, drama, music, art, and leadership.

PROVISION FOR GIFTED CHILDREN IN CALIFORNIA SCHOOLS

Many inquiries and requests have come to the Division of Elementary Education of the California State Department of Education concerning the practices of California schools in providing for the gifted. In response to a letter from the Division in April, 1941, to city superintendents of schools, which

requested a brief description of the provision for the education of gifted children going forward in their cities, twenty cities described in detail the programs they were following.

Fifteen of the twenty cities indicated that provision for an enriched curriculum for gifted children is included as a part of the regular class program, provision being made in several instances for additional opportunity for pursuing special interests outside the regular group in music, art, and drama.

Two cities reported that through careful segregation, provision is made for homogeneous grouping of gifted children under the direction of teachers who are guided by a course of study designed to challenge the student.

Three cities indicated that no special provision is made for the education of gifted children other than more required reference reading as well as a higher standard of work.

SELECTION OF THE GIFTED

The inquiry concerning gifted children was general and did not define the term "gifted." The respondents, therefore, were free to use their own interpretations. Both general ability (abstract intelligence) and special aptitudes in such fields as art, music, writing, and the like were considered in the reports.

It is notable that different means are used to discover those children who show unusual ability. Most cities combine results from several sources including teacher observation, survey tests (intelligence and achievement), and special study of those who show remarkable achievement in some field such as art, music, and dramatics. The use of cumulative records and case histories in which are found complete data on intelligence, health, achievement, home background, social development, and the like, is relied upon as basis for determining the guidance program for these children.

PROVISION FOR ENRICHED PROGRAMS IN REGULAR CLASSES

In those cities attempting to provide for the needs of gifted children as members of a heterogeneous group, the regular

program is enriched and supplemented in a variety of ways to meet the needs of individual pupils. The following items, although not all-inclusive, indicate a number of the techniques for enriching the curriculum for gifted children:

1. Enriched program of classroom activities to capitalize upon individual aptitudes, interests, and abilities.
2. Participation in school-life activities—assemblies, club leadership, student government, school publications.
3. Cultivation of special interests.
4. Special art classes.
5. Solo performances in school orchestra.
6. Creative writing opportunities, clubs—puppet, book, radio.
7. Individual guidance of reading interests.
8. Opportunity for extra use of library facilities.
9. High standard of work commensurate with ability.
10. Development of special leadership abilities.
11. Pupils freed from unnecessary routine and drill.
12. Co-operation with parents in planning out-of-school activities.

EXCERPTS FROM REPORTS ON PROGRAM FOR GIFTED PUPILS

The following excerpts are taken from the reports submitted and serve to indicate the point of view as well as the procedure of typical city school systems of meeting the problem of the gifted.

INGLEWOOD

Our program in Inglewood is based on a philosophy of a flexible classroom and provision for individual differences. The gifted child is taken care of in a program of this type. However, we have provided a special educational guidance study, analysis, and follow-up of those cases in which the teacher feels they deviate too far from her flexible classroom program. The recommendations made in the study are expected to be carried out either in the classroom or in a special program outside the classroom. Nevertheless the child continues to be a member of the regular classroom—any special program is carried on for only a part of the day.¹

¹ Reported by Chester A. Taft, Director of Child Welfare and Attendance, Inglewood Public Schools.

SAN DIEGO

The philosophy upon which the San Diego City Schools has acted has been that the best provisions lie in enrichment through participation, both in intellectual and in school life activities, rather than in the provision of any special class or school for gifted children. Accordingly, we have had teacher groups in many schools study the problem and have had a flexible program emerge to make possible such enrichment.

Additional books of all sorts, additional participation opportunities in school activities, and in community activities are available. Normally we do not give extra promotions unless the child is physically and socially mature beyond the actual placement in which we find him. If we find children who have superior ability in general plus very strong special interests, we try to cultivate those interests and through them lead to still other interests and activities.

For example, a fourth grade boy of genius rating was found to be much interested in marine life. A microscope was provided him and an opportunity with other children of similar interest to collect specimens of microscopic tide-pool life. The boy independently drew and classified several score of the specimens. His experience with a microscope led to an interest in optics and when I last saw him, he was drawing up plans for a school-made six-inch telescope. I have heard since that the telescope was constructed successfully. In addition to this he was carrying on his regular school work and getting broad background and experience. The particular instance outlined occurred several years ago, but it is the kind of thing which is happening rather frequently.

Concerning children with special talents in the arts, we endeavor to continue an enrichment program within the schoolroom and the school-building. In the graphic arts, the City Schools have co-operated with the Fine Arts Gallery in the establishment of Saturday morning art classes for gifted children. While this opportunity concerns only a very small percentage of our children, it has been of real importance to a few of the most talented.

In music our most talented children are given opportunities to perform as soloists with the school orchestras. They are encouraged to continue their study, both in school and afterward.¹

SANTA ANA

We have made it a point to keep these children with the normal groups, drawing as little attention to them as possible. At the same time, we have tried to give an enriched program.

¹ Reported by Richmond Barbour, Instructional Co-ordinator, San Diego Public Schools.

In the elementary schools the children are grouped within the room in their reading and according to their interests, and many of the children have been able to do outstanding work in music, creative writing, dancing, and drama.

We have had some very fine creative writing and music from these pupils. The main thing that has been stressed with them was social development and development of leadership, especially on the junior high school level.¹

SANTA BARBARA

In general, we believe that children should not be specially grouped in the homogeneous groupings of a few years ago. We feel our gifted children should have normal social experiences; therefore, we place them according to their chronological age and social maturity, few accelerations being made and those only after complete case study.

Within the classroom, however, there is definite planning to meet their special needs. During the unit, experiences are presented to provide children with more complex problems to solve—those which require their special abilities. Grouping is also made for the language arts and arithmetic experiences so that gifted children progress at a more rapid rate than others. A wide variety of books is provided to stimulate interest. Each classroom has at least three different groupings for the skills periods.²

WATSONVILLE

Our reading program has been developed to give the gifted child as much help as the slow or retarded child. This is done largely through individual guidance of reading interests, book clubs, radio programs, and reading divisions within each classroom. It is our opinion that more opportunity for gifted children is an essential part of any progressive program. It must be the responsibility of the room teacher as well as the administration to see that the program of on-going activities be developed so that the gifted child feels a part of, not apart from, the regular program.³

THREE TYPES OF PROGRAM FOR GIFTED CHILDREN

IN CALIFORNIA

Several California cities have developed outstanding programs for the gifted child. Following are reported in more detail three types of programs designed to care for the needs of such

¹ Reported by Nora F. Reid, Director of Research, Santa Ana Public Schools.

² Reported by Charlotte D. Elmott, Director of Child Guidance, Santa Barbara Public Schools.

³ Reported by Mrs. Elizabeth Cameron Bent, Curriculum Co-ordinator, Watsonville Public Schools.

children. The first provides a long-time guidance program for gifted children as members of heterogeneous groups; the second type is a long-time guidance program for gifted children as members of carefully selected homogeneous groups; the third program came from a series of curriculum committee meetings and resulted in specific recommendations to teachers for guidance of the gifted.

BERKELEY

A Long-Time Guidance Program for Gifted Children As Members of Heterogeneous Groups

Definite recognition of the need of an enriched program of education of gifted children and those with special abilities began in Berkeley in 1928, under the leadership of Dr. Virgil E. Dickson, Superintendent of Schools, then Assistant Superintendent. Since this time there has been a continuing committee on the education of children with special abilities, composed of administrators and teachers. It has been the responsibility of this committee to discover children with special abilities in the schools and to provide stimulation for the enriched education of each group.

After several years of experimentation, the following system was set up for the identification of children with special abilities. Any teacher may nominate a child who seems gifted or who appears to have some special ability. This may be done on the basis of the teacher's observation of the pupil's interest or on the results of an objective test such as the Seashore Music Test or the Meyer-Seashore Art Test. A folder is made up for each pupil so identified, with three initial forms: the identification form, giving the pupil's name, age, grade, and so on, and a brief description of his special ability, a test data record, giving available information on intellectual and educational tests, and an interest-interview form, recording the family background and indicating the possibilities outside of school for the child's advancement in his ability. This folder follows the child throughout his progress in the Berkeley schools, or until he is withdrawn from the active list. Each term a follow-up is filed, giving details of the child's general progress, his growth in his special ability, and what opportunities had been provided for him both in school and outside of school hours. A child is withdrawn from the active list when three teachers in succession report that there seems to be no evidence of the special ability reported by the teacher who first nominated him.

At present in Berkeley, there are 440 pupils identified as having special abilities under the following headings: general intelligence, science, leadership, athletics, art, music, dancing, creative writing, dramat-

ics, manual dexterity, and languages. The number of children having special ability in art heads the list, with 176 identified; general intelligence is second, with 101; music is third, with 88; and creative writing is fourth, with 26.

The general standard for nominating a pupil for general intelligence is an IQ of 130, although pupils may be nominated with recorded quotients below this if their general standard of work seems to indicate a higher intellectual ability.

The other phase of the committee's work, and by far the most important one, deals with the provision of opportunities for advancement of each pupil in his special ability. Such opportunities are provided in the individual classroom, as an activity of the school, or on a city-wide basis. The determination of the emphasis in each school depends on the abilities of the individuals identified and on the interest and sympathy of the teachers of that particular school.

Different means by which the schools of Berkeley are providing opportunities for our pupils with special abilities are as follows:

GENERAL INTELLIGENCE

- Acceleration
- Enriched curriculum
- Special assignments and reports
- Club and hobby groups
- Classes in special subjects during or after school
- Ability grouping

ART

- Exhibits of pupils' work
- Action exhibits
- School art work; friezes, scenery, and the like
- Arts and crafts clubs
- Special classes during school hours or after school
- Special instruction in regular classes
- Visits to art museums
- Visits to commercial art establishments
- Exhibits of masterpieces
- Competition in art and poster contests

MUSIC

- Musical organizations, band, orchestra, glee clubs
- Participation in programs, assemblies, school concerts
- Programs by great artists at school
- Attendance at outside concerts

CREATIVE WRITING

- School writers clubs (Reading to associates)
- Anthologies, verse and prose, mimeographed and exchanged
- School publications
- Commercial publications
- Programs of literary work
- Pupil-written plays
- Essay contests

LEADERSHIP

- School and class officers
- Student councils, leaders, and the like
- Speakers on special occasions
- School and teacher assistants

The above description and outline of Berkeley's work with gifted children represents one means of giving special educational advantages to children with special abilities without segregation in special schools or a material increase in the cost of their education. This is the answer of one city as to a plan of keeping its children, particularly those who should take places of leadership in later life, off the assembly line.

It is hoped that these methods will result in giving our boys and girls richer and fuller lives and in making each one a more valuable member of society.¹

LOS ANGELES

A Long-Time Guidance Program for Gifted Children As Members of Homogeneous Groups

The Los Angeles public schools were among the first to organize special classes for children of superior general mental ability. These so-called opportunity classes in elementary schools are conducted according to the philosophy that curriculum modification and enrichment in homogeneous groups are the most desirable means of conserving and developing the capacity for creative leadership among superior children.

Opportunity classes are organized in elementary schools upon the request of the principal if the number of pupils of superior mental ability indicates the need for such classes. There must be approximately thirty pupils with IQ's of 125 or above in the school or within easy transportation distance of the school.

To afford reasonable social homogeneity the chronological age range is limited. A group in one school, for example, is made up of pupils from the four sections of the fifth and sixth grades; in another school an

¹ Reported by Bruce L. Zimmerman, Chairman, Committee on the Education of Gifted Children, Berkeley Public Schools.

opportunity class may draw from five grade sections. After the group is organized, grade designations and boundaries are forgotten. The class becomes a social working unit, not a combination of grades.

Children are selected for the special classes by mental examinations. Candidacy for the examinations is indicated by the routine counselor surveys of schools or by teachers' recommendations.

Groups of children who test in the highest 1.5 percent for intellect have been gathered together. The purpose in so grouping them is that each may, according to his developmental needs, "live the good life" as part of a social group while he is acquiring the skills, perfecting the cultural practices, and developing the attitudes that will help him to continue to live fully and usefully. Adequate realization of this purpose demands a teacher who is herself in the highest 1.5 percent in general mental ability and is a well-integrated person capable of living a life of satisfying cultural pursuits. Such a teacher should be acquainted with the tools of fine living: books and bookmakers, music and musicians, art and artists of all kinds, people and their institutions. These she should know, and her knowledge and appreciation should grow from day to day.

Further, a teacher of superior children should possess the habit of tolerance and appreciation of the efforts of all with whom she comes in contact in order that she may cultivate such a habit in the children she guides.

A paramount consideration in the instruction of gifted children is the type of curriculum which they shall experience. What are the basic requirements to which enrichment procedures shall be applied? What constitutes curriculum enrichment for the children in these special groups? Los Angeles has come to believe, after eighteen years of experience with opportunity class children and their teachers, that enrichment is largely a matter of methods of instruction rather than of changes in subject matter or materials. Course-of-study requirements, where such exist, can be made to enrich the lives of the children if they are "pupil purposed" and taught thru actual pupil experiences.

Children with high IQ's need, as much as any other children, to acquire skill in arithmetic, spelling, the grammar of language usage, and the other tools of learning. In fact, these boys and girls are the ones who will make the most valuable use of the tools. Imposed drill, as such, is meaningless to them and usually unnecessary. They seek for meanings and relationships in what they do, and they work with definite purposes in view. In the opportunity classes tool subjects make up an integral part of the enriched experiences of the pupils thru the methods of instruction employed. The philosophy of that instruction involves no formal lesson assignments and no required recitations. Each pupil is encouraged to watch his own progress and improvement.

Adjustment of the curriculum to meet the needs of these groups also involves giving the children daily practice in creating, discovering, inventing, adapting, and problem-solving on their own levels. A major field of experience is set up for each group, the selection of the field being governed by the interests of the pupils. In theory, approximately one semester's study is devoted to the general field of science or the "evolution of common things." The second semester's work is built around the cultural aspects and institutions of some period in the history of civilization, including the people of that period and their achievements in art and literature.

Each unit is organized, as far as possible, as a problem to be investigated and solved. The units are not presented as opportunities for collecting facts or acquiring knowledge for its own sake, since it is recognized that such activity requires little or no exercise of critical judgment. Rather, each project grows out of pupil interest, has a specific purpose, and evolves thru careful pupil planning. Among the subjects chosen for unit study have been the following: (1) food and nutrition; (2) what people know of astronomy and how they use the knowledge (an observatory and a planetarium in the vicinity aided in this study); (3) weather; (4) publishing a newspaper; (5) music on the pages of our history (the production of a pageant showed the connection between the stages of our historical development and their music); (6) illumination; and (7) plant propagation and chemiculture.

One class spent a profitable and interesting period investigating the question of why Los Angeles is bringing water thru mountains and across deserts to the city. The study developed until it included the consideration of the uses, conservation, and control of water in general, and the history of the city's water system. The group took advantage of opportunities for much firsthand investigation and research, numerous observation expeditions, and many illustrations of means of water control and transmission.

The creative ability of children of superior general intelligence is of high order and needs only the right soil in which to flourish. The encouragement of appreciative attention brings forth original expression in simple inventions, music, dances, stories, and poems. The workshop period, during which all are free to engage in the "making of things" or in such creative work as drawing, painting, and modeling, is an established part of the program. Another part of the program is the individual contribution time, or "class meeting," when the group listens to its own members as they present their offerings for information or appreciation.

Los Angeles is not entirely satisfied with its provisions for gifted children and is constantly studying means of improving them. For that reason the curriculum has not been and probably will not be put in per-

manent, written form. However, certain things seem to be true of opportunity class training. The experiences of pupils and teachers have convinced all who have watched the program thru its experimental stages that it (1) brings to the children happiness in work and freedom for development, (2) trains for leadership, (3) brings out initiative and research ability and teaches children how to study, (4) develops a sense of responsibility to others, and (5) relieves teachers in regular classes of their responsibility to these superior children, and thus makes way for special attention to the needs of children of lesser ability.¹

LONG BEACH

Long Beach Committee on Guidance of Gifted Pupils

The Committee unanimously recommends that the following techniques which are in use at present continue to be used inasmuch as they offer valuable opportunities for the guidance of the gifted pupil. It is recognized that all suggestions are not applicable to all gifted pupils but application should be made in accordance with the possibilities.

I. Identification of the gifted pupils

- a. *Intelligence tests.* The intelligence test is the best available means of identifying gifted pupils. Its use is fundamental to proper classification.
- b. *Reading tests.* There is a high correlation between reading tests and intelligence. Standard reading tests are available through the Research Department. Their use helps greatly in detecting the exceptional reader who may be a child of superior intelligence.
- c. *Teacher estimate and recommendations.* Personal estimates and recommendations of teachers compensate for the inaccuracies of the intelligence test in that they supplement the mechanical aspect of objective tests.
- d. *Cumulative records.* In the Long Beach schools there are developed cumulative records for all pupils from kindergarten through the Long Beach Junior College. These records contain intelligence, aptitude, and personality test ratings as well as achievement in all subjects. Information concerning the home, significant health data, behavior traits, and occasional complete case histories are available.

¹ Reported by Cora Lee Danielson, Assistant Supervisor, Section of Education of Exceptional Children, Los Angeles Public Schools.

- e. *Class grades in various subject matters.* Although highly subjective and inaccurate, pupil marks in special subjects do indicate certain abilities and interests. To that extent they may represent giftedness.

II. Classroom activities

- a. *Insistence upon accurate work.* The teacher should insist upon a degree of accuracy commensurate with the mental age of the student. Standardized tests in spelling, arithmetic, reading skills, and the interpretation of the results might be used periodically as a basis for the pointing out of weaknesses.
- b. *The encouragement of special interests.* This is effected by influencing the gifted pupil in a wise choice of elective courses, by inducing participation in special interest clubs, and by recognizing individual interests in the classroom.
- c. *Varied types of assignments.* The problem approach is a method which unites the total group in the study of a common problem but which makes provision for the study of subproblems by committee or individuals.

Another method is the use of minimum assignments for a unit of study which are supplemented by readings or questions of a more abstract nature which the gifted are encouraged to complete.

- d. *Initiation of special projects.* The several school subjects offer many opportunities to cultivate the well-known ability of the gifted for specialization. The work in the sciences lends itself to collecting and to experimentation. The work in language offers varied opportunities in the editing of annuals, literary magazines, and newspapers. In the area of public relations the gifted find excellent challenges in the requirements of assemblies, public programs, and radio broadcasting.
- e. *Encouragement of broad reading habits.* This may be done by utilizing special reports, either individual or by committees, in which the difficulty and extent of reading material is adapted to the student's ability. The assignment of special projects involving extensive reading is also recommended.
- f. *The development of the ability to work independently.* It is necessary that the gifted pupil be familiarized with techniques which will assist him in his ability to work independently in the

library, in the laboratory, and in other learning situations. This implies placing an emphasis on why and how in learning situations, particularly in science and social studies. Teachers need to aid the gifted only when necessary and do not need to offer too much guidance when the pupil shows leadership.

- g. *Pupil responsibility for class management.* Opportunities for guidance of gifted pupils in effective human relationship are offered in instances when such pupils serve as chairmen of committees, panel chairmen, or presiding officers of class groups. Tact, appreciation of the viewpoint of others, patience for the slower moving, are the qualities which these experiences should develop.
- h. *Insistence that the pupils work at their own speed.* This may be effected through the use of special reports, either individual or committee, with the difficulty and extent of reading material adapted to the pupil's ability. The use of a point system in grading acts as a special stimulus.
- i. *Encouragement of abstract thinking and interpretation.* This is stimulated by the use of thought questions based upon assigned subject matter, answered in written or oral form; by skillfully motivating class discussion; by pupil development of topics which are rich in possibilities for expansion; by pupil efforts to recognize, state, and solve personal, social, and philosophical problems; and in the field of the arts by individual projects and activities.
- j. *Use of the conference period.* Pupils are freed from regular classes to meet with designated teachers during conference periods.
- k. *Enrichment, particularly in the extension of the type of work, rather than the quality.* Procedures in this connection include class projects which encourage the pupil's civic interests when they join the adult life in the community. Pupils are challenged without being asked to do the impossible. Current events discussions offer an opportunity in which there is developed a democratic respect for the opinions of others. A study of our cultural background may be encouraged through extensive reading. Self-expression is encouraged in writing, musical activities, scientific collecting, dramatics, and art.

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NASHVILLE, TENNESSEE

III. Activities outside the classroom

- a. *Participation in school assemblies.* The intellectually gifted are frequently talented but in many cases also timid. Counseling room teachers need to recommend talented pupils to those departments working with assemblies in order that superior pupils with talents be induced to participate.
- b. *Pupil leadership in clubs and special interest groups.* The superior pupil has many interests. Club endeavors need the momentum which this type of pupil can give. Guidance officials need to assist such pupils in finding an opportunity to exert their leadership in special interests.
- c. *Participation in student government.* Superior students have capacity for organization, and the activities of student government offer an excellent area in which gifted pupils exercise their talent for group direction and control.
- d. *Teacher counseling for college entrance.* Practically all of the superior children are potential college candidates. Consequently teachers and counseling officials early present the requirements of the college career to the gifted pupils and keep in contact with their programs.
- e. *Speakers' bureaus.* Some gifted children are natural speakers. Speakers' bureaus offer opportunities in this connection to develop ability in public speaking and in capacity to think logically.
- f. *School publication.* The requirements of reporting and editing offer excellent opportunities for the gifted to exercise their individuality and special talent, while the dependence upon individual effort which journalism requires frees the gifted from the boredom of group work.
- g. *Office practice.* While opportunities are limited in this connection, the gifted enjoy working on adult levels and appreciate the opportunities to meet tests of accuracy, precision, and responsibility.

IV. Additional techniques for the guidance of gifted pupils

- a. The guidance of the gifted should be placed in the hands of teachers chosen because of their skill and resourcefulness in teaching, their insight into the educational opportunities presented by work with superior children.

- b. Definite training for teachers of ability for work with gifted pupils. This involves training in service through the medium of workshops, demonstrations, and institutes. Out-of-service training includes summer school, extension work, and leaves of absence.
- c. Size of classes including the gifted pupils should be limited to an enrollment of twenty-five. Until the financial support of the schools is adequate to meet the requirement there is little hope of effectively carrying out the guidance of the gifted under the theories approved in this report.
- d. Gifted children should be put in special classes in the core curriculum and in the regular classes the rest of the time.
- e. The marks and promotion of the gifted should be based upon the ratio of effort to ability in required subjects and upon the extent of mastery in elective subjects.¹

CONCLUSION

Those who are entrusted with the educational guidance of the gifted unquestionably have a tremendous responsibility. Whether placed within an unselected group or given attention in a special group the gifted child should develop to his maximum potentialities. In either situation those responsible for his education are faced with the task of providing guidance commensurate with the child's needs. This requires skillful teachers capable of envisioning and providing challenging experiences; it requires a philosophy and accompanying purpose in the leaders of such children which recognizes the imperative need for developing democratic attitudes, understandings, and ways of procedure on the part of such children. The needs of democracy and civilization require that all human resources contribute to the solution of world dilemmas. The potential leaders of future society must be imbued with the spirit of true democracy; they must see the need for an extension of the idea of the brotherhood of man and the possibility of the good life for all. They must be challenged to exert their full capacities to bring these things to pass. Let all those in our democracy

¹ Reported by Maud Wilson Dunn, Co-ordinator, Long Beach Public Schools.

who are to guide the gifted fully comprehend the responsibility entrusted to them. The gifted must be trained for leadership.

No condition more significantly portrays the need of civilization today than that facing England in the event of victory in her present struggle. The needs of England and the needs of all nations cannot be better described than they have been in the following summary of a speech by Mr. Ernest Bevin: "We in England must have trained leaders who have such a deeply ingrained knowledge of the needs of all the people that they can throw the machinery of reconstruction into high gear."¹ He emphasized that the peace leaders must base their decisions upon an unprejudiced understanding of the social, economic, and political needs and rights of all. Can the educators of America accept this challenge as a guide in building democracy's leaders of tomorrow?

¹ Herbert B. Bruner, "Education's Role in Developing Leadership," *Teachers College Record*, XLII (February, 1941), 397.

READING IN RELATION TO THE SOCIAL LIVING PROGRAM¹

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The meaning of the term "social living program" is familiar to modern educators. However, in order to have a common basis of understanding for this discussion of reading as it relates to social living, I shall attempt a brief definition. To me the social living program includes all those experiences in which children engage which help them to live democratically with others, and which help them to understand the social and natural world in which they live. In its broadest sense this is the curriculum because the skills of oral and written communication, of computation, even man's creative expression through the arts represent his attempts to describe and interpret his world.

Reading, then, cannot be regarded as an isolated skill, but must be thought of as an integral phase of an individual's total language development, closely related to spoken and written language. The initial steps in learning to interpret printed symbols are based on the oral language pattern already developed, and subsequent growth in reading ability is dependent on continuous development in spoken English. This is true because reading is a matter of meanings. No person is actually "reading," no matter how well he may pronounce words on a printed page, until he obtains meaning from what he sees in print. Neither can he read with understanding words and phrases which are not part of his auditory vocabulary. It has been truly said that we can read only that which we already know.

It is important to know that the various language skills are closely related and dependent one upon the other. The school

¹ An address given before The Conference on Supervision, University of California at Los Angeles, July 14 to 25, 1941.

must be aware also that speaking and reading and writing and spelling skills have a sequence in the order of their appearance and growth curves of their own. Unless the teacher is acquainted with the general pattern of language development, she will be unable to assay the previous language growth of individual children or to provide the learning experiences necessary to continuous sequential development.

Many of us who work with children of elementary school age are ignorant or unmindful of the marvelous growth that occurs in young children in this respect. For a brief description of the child's induction into fluent use of his mother tongue I have drawn upon that excellent book, *The First Five Years of Life* by Arnold Gesell and the staff of the Yale Clinic of Child Development.¹ The crying of the newborn infant is his first vocalization. At the age of four weeks he is heedful of sounds in his environment. When he is sixteen weeks old he pays attention to the human voice, and he engages in a number of forms of vocalization, such as cooing, gurgling, laughing, and bubbling. By twenty-eight weeks he crows and squeals, and makes a number of single sounds, occasionally combinations of sounds that resemble syllables. By the time he is forty weeks old he imitates sounds, some of which closely approximate words.

The normal child speaks his first word shortly before he is a year old.

Appearing first as a simple conditioned response to an object or situation, the spoken word only gradually assumes its utilitarian and communicative function. Even as late as 18 months "talking" continues to be largely a form of play, or an accompaniment to action, rather than a surrogate for it. Communication needs are met by the more facile language of gesture and expressive vocalization.²

This is known as the jargon stage. It reaches its peak between the ages of fifteen and eighteen months, and is soon replaced by conventional verbal expression. By the age of two the child may use as many as 200 or 300 words, short sentences are the

¹ Arnold Gesell and Others, *The First Five Years of Life*. New York: Harper & Bros., 1940, pp. 16-57 and 190-237. Used by permission of the publisher.

² *Ibid.*, p. 190.

rule, pronouns are beginning to be used, articulation is often good. Talking is still used largely as an accompaniment to action and as a play activity in itself, but it is beginning to be used to communicate wants, ideas, and information. The child verbalizes simple experiences and tells of things he has seen.

Toward 3 years, the outstanding change in language behavior, aside from the quantitative development of vocabulary and complexity of sentences, is the progress toward functional integration with the total behavior of the child. Although language is still a new and imperfect instrument, the fundamentals upon which the imposing structure of later years is to be reared are mostly present. Vocabulary is extensive; long sentences including compound and complex structures are common; tense, moods, and parts of speech are distinguished, however imperfectly. Generalization is common, and both in talking and in comprehension of the speech of others, non-present situations are dealt with verbally.¹

As compared with other stages of preschool development, the age of 4 years may be described as the flowering period of language. The 3-year-old, though talkative enough, has not as yet discovered the transcendent power of words and the excitement of using them to control or to enrich all types of situation. The more mature 5-year-old—a young adult by the side of three and four—handles his language equipment with relative deliberation and self-control. But the 4-year-old talks—talks about everything, plays with words, questions persistently, elaborates simple responses into long narratives, comments with approval on his own behavior and criticizes that of others, balances comparisons. The examination of a bright, active child of 4 years often resembles nothing so much as a head-long free-association experiment.²

At five years the child is more grown up than at four. He speaks in many cases without infantile articulation. He answers questions succinctly and to the point. He asks questions for information and not merely for social intercourse or for practice in the art of speaking. He is interested in the practical mechanisms of the universe although he is still unable to comprehend more than the simplest mechanical concepts. Vocabulary includes on an average 2200 words, sentence sense is well devel-

¹ *Ibid.*, p. 201.

² *Ibid.*, p. 204.

oped, and the language pattern is essentially complete in structure and form.

The dramatic play of Five is full of practical dialogue and commentary which has to do with the everyday functions of business, kitchen, grocery store, transportation, garage. Bright 5-year-old children may even dramatize natural phenomena in which sun, moon, stars, wind, clouds, etc., figure as characters. There is a good deal of talk in these impersonations,—an effort to clear ideas and to capture relationships through words rather than to indulge in make-believe. Even the renderings of death, killing, sickness, surgery, and accidents are factual instead of emotional in spirit.

The preoccupation with community situations in group play reflects an intellectual effort to understand social organization. But much of the talk is in essence a form of "collective monologue," and does not bear upon causal or logical relationships. Not until the age of Seven or later do such relationships figure in conversation. Genuine interchange of ideas remains limited. Although Five is clarifying the world in which he lives through a discriminating and even analytic use of words, his thinking is still so self-confined that he cannot suppress his own point of view even temporarily, in order to realize by reciprocity the point of view of others. He distinguishes his left and right hand in his own person, but not in others.

. . . He is so egocentric (in Piaget's sense) that he is unconscious of himself, unaware of his own thinking as a subjective process separate from the objective world. Hence his animism. Hence an intellectual innocence which is profoundly primitive in spite of a deceptively mature facility in grammar and speech.¹

When the child enters the elementary school at six he has a spoken vocabulary of approximately 2500 words, and this vocabulary may be expected to increase by about 900 words a year if he has learning experiences conducive to language development. Within the year most children will begin an entirely new phase of language—reading, or the recognition of meanings from printed symbols. The careful teacher will not permit the introduction of this new learning until she is sure that the child has sufficient maturity to attain success from the beginning. The evidences of readiness for reading are well known and need not be repeated here.

¹ *Ibid.*, pp. 55, 56.

There are several stages¹ in the development of reading skills. The first stage is the association of printed words with spoken words and personal experience. Of this Laura Zirbes says,

Only after the child realizes experience and communication can be converted into recorded language and then turned back into oral language can he be expected to hold himself to the effort of carrying on this process himself.²

The second stage is reached when the child is able to recognize at sight the words in the simple stories he reads. The emphasis on meaning is still uppermost, as it must be in all reading, but the child is able by using picture and context cues, memory of the word form, and the like, to recognize individual words in context. This stage continues usually until the child knows 300-400 sight words, probably throughout the reading of story charts, preprimers, and easy primers.

During the third stage the child continues all previous learnings, but he has now attained sufficient maturity to see similarities and differences in words. This requires enough experience with words as wholes, and enough auditory discrimination to provide background for inductive analysis of known word forms. The phonetic relationship between speech and print begins to become meaningful to the child, and he gradually acquires a key to the many words in his spoken vocabulary which he has not yet learned to recognize in print.

The child reaches a fourth stage in reading development when he is able to apply his phonetic knowledge in attacking unfamiliar words in context. Experience indicates that this stage is reached naturally from the preceding, if the phonetic analysis of familiar sight words has been taught as incidental to and an integral part of reading for meaning, and the child is encouraged to maintain his use of context and other clues to word recognition while he adds the new phonetic ability. With continued practice of this new skill, along with old skills, he

¹ Hubert C. Armstrong, "Learning Development in the Language Skills." Oakland: Oakland Public Schools, June, 1941 (mimeographed).

² Laura Zirbes, "What Is a Modern Reading Program?" *Educational Method*, XX (December, 1940), 152.

gradually acquires independence in attacking unfamiliar words. For the first time his reading vocabulary approximates in size his spoken vocabulary.

The fifth stage of reading development involves continued practice in all the preceding abilities, and is characterized by rapid growth in the size of reading vocabulary and by speed and ease of perception of words and phrases. This is possible *only* through a large amount of reading at a level not too difficult for the child. Children who do not read many books at this stage do not develop rapid perception of words and phrases and consequently do not read with fluency. Thus it is important that the teacher provide a wealth of easy reading materials and give guidance which will help children consolidate and perfect the skills they have acquired at earlier stages.

Beyond this stage, as it has to some extent at all stages, reading becomes a useful tool by means of which children increase their oral vocabulary, refine their techniques of reading for different purposes, develop permanent tastes in reading for pleasure, and gain new ideas and new information from the printed page.

Now, as everyone knows, children vary tremendously in their rate of development. Dr. Gesell says,

There are laws of sequence and of maturation which account for the general similarities and basic trends of child development. But no two children (with the partial exception of identical twins) grow up in exactly the same way. Each child has a tempo and a style of growth which are as characteristic of individuality as the lineaments of his countenance.¹

In the recognition of this fact lies the essence of the modern school curriculum, lie also many of the conflicts still unresolved. It will be through better understanding of children, better means of observing and describing their individual growth patterns, better organization of learning experiences in terms of child growth that the school will improve its service.

This long discussion of language and reading development may seem far removed from the social living program. Actually,

¹ Arnold Gesell and Others, *op. cit.*, p. 7.

the relationship is so close that it is immediately apparent. If reading is to be regarded as one aspect of the total language pattern, those activities and experiences that contribute most to growth in the understanding and use of language may be expected also to exert a direct influence on reading. Of all possible school experiences, those initiated by the social living program are most conducive to desirable growth in all phases of language.

All language has its origin in the social situation. With the exception of the small percentage of egocentric speech common to young children, there would be no significant development of language were human beings not faced with the need of communicating with one another. The opportunities for functional development of the mother tongue which grow out of a vital social living program can be only mentioned: the acquisition of new words and the clarification of meanings through many firsthand and vicarious experiences, the practice in organization and expression of ideas through planning and evaluating activities and through dramatic play, and the frequent opportunities for creative expression through language which grow out of vivid personal experience. Consider too that the first reading is based on children's own experiences, and that the use of books for extending information and enriching every phase of living begins even before a child enters school. Truly there could be no reading but for the social conditions which are basic to all language development.

In the light of the foregoing discussion, it is pertinent to suggest specific practices in the elementary school that may bring about increased facility in language and consequently in the ability to read.

1. During the first years in school increased attention to the social living program and less to formal instruction in reading is indicated.

Schools have made commendable progress in recent years in adjusting the beginning reading program to the developing abilities of children, and I believe that in many classrooms sat-

isfactory learning conditions now exist. However, there is still too much pressure from *some* intermediate and even from primary teachers, from some administrators and some parents to drill on reading per se, and too many young children are still facing maladjustments, feelings of inadequacy, and confusions as a result.

There is ample experimental evidence that superior reading achievement and sustained interest in silent reading has been attained by children of average mental ability whose introduction to reading occurred during their second or third year in school following a preparatory period which emphasized vital experience and language development. Witty and Kopel¹ cite studies showing that even mentally retarded children learn to read rapidly, with understanding and pleasure, when initial instruction is delayed until they have gained a good experiential background and mental ages of seven or eight.

In this connection another important aspect of too-early emphasis on learning to read has been presented by M. Lucille Harrison² in a recent magazine article. Not only is a child's fluent use of speech, characteristic of the preschool years, limited by the sheer force of numbers in the classroom, but when great emphasis is placed on learning to read and write and spell in the primary years, there is little time left for the firsthand experiences and childlike activities which result in language growth.

Because of the very nature of the process of learning to read, the child must deal with forms of sentences so simple that they are similar to the sentences he used at the age of three years. . . . The result in the whole situation is very meager gains in linguistic development of the kind needed, which is that of extension of spoken vocabulary, enrichment and refinement of word meanings, and an increase in the length and complexity of sentence structures already being manipulated in his talking activities.³

Many of the reading difficulties that become evident in the intermediate years are not mechanical problems of word rec-

¹ Paul Witty and David Kopel, *Reading and the Educative Process*. Boston: Ginn and Company, 1939, pp. 170-171.

² M. Lucille Harrison, "Need for an Adequate Oral Language Program," *Elementary English Review*, XVIII, (March, 1941), 99-102. Used by permission of the publisher.

³ *Ibid.*, pp. 100-101.

ognition at all. They are language problems which prevent the child from understanding the words and phrases which he can often pronounce with ease. Miss Harrison asks,

When does the trouble begin? It begins when the school reduces radically the time spent in the practice of functional oral language and puts too much of reading and writing in its place. This starts in the kindergarten where we begin to limit the talking of children, and it increases from that point. The writer, therefore, pleads for an oral language program for the kindergarten and primary grades that has equal rank in school with reading and writing programs.¹

2. Classroom practice in the language arts can be vastly improved if supervisors and curriculum workers will declare a moratorium on teachers' meetings and bulletins and supervisory programs which emphasize techniques of word drills and devices for making reading palatable to the young, and devote their energies instead to helping teachers know how language develops in children and the relation of reading to language and social living.

This would involve an understanding of normal language growth beginning with the preschool period. It would involve the development of skill in observing the speech habits of individual children, that the present level of language development of each child may be ascertained and next steps in learning predicted. It would mean that growth in reading, and later in writing and spelling, should be planned and evaluated in terms of developmental stages, rather than on arbitrary grade standards. It would involve recognition of the fact that the abilities commonly regarded as necessary for initial instruction in reading apply in exactly the same way at all levels, particularly these criteria: wide experience, reasonable facility in the use of ideas, reasonable command of simple English sentences, a relatively wide speaking vocabulary, keen interest in learning to read. It would involve constant emphasis on reading for meaning and on thinking and talking about the ideas gleaned from the printed page. It would probably call for techniques of observing children's habits of reading, of learning to stop "teaching" to look

¹ *Ibid.*, p. 102.

and listen. Most reading difficulties, provided initial instruction was not given too early, could be caught when they first appear if teachers knew how to observe and question what goes on in a child's mind when he attacks an unfamiliar word or tries to interpret what he reads. And finally, emphasis on a fine social living program will bring greater returns in language growth and consequently in reading ability than many teachers realize.

3. The modern school recognizes the educative values of all experience. In spite of the fact that learning today comes about through many nonreading means, it has been demonstrated that the vital activities in which children engage lead to more voluntary reading, to more purposeful reading, than did the reading-centered program of the early school. In the choice and use of books for the social living program certain problems face teachers and supervisors.

a. Children need books that will extend and stimulate their own firsthand experiences and answer the many questions that arise as they explore an area of experience.

Books giving information are needed by five-year-olds as well as by twelve-year-olds. The dramatic play of kindergarten children leads to a desire for more knowledge just as do the more mature activities of the sixth-grade children. Teachers often need help in selecting good picture books and simple stories that will provide young children with information they need. We must be careful, of course, to fit factual concepts to the maturity of children; but on the other hand, there is no excuse for the paucity of intellectual stimulation found in some primary classrooms.

Later, when children can read books for themselves, many teachers need help in selecting books having a wide range of reading difficulty and of content. The availability of reference materials in the class simple enough for the immature readers and difficult enough to challenge the superior readers should be one consideration in selecting units of work. Fortunately, publishers are recognizing the desire of children to read for informa-

tion from the beginning and are bringing out an increasing number of easy books relating to common areas of experience.

Many times the provision of books ranging up to adult difficulty will contribute greatly to the children's study. Certainly the teacher will need material much more comprehensive than children's reference books to help answer the many questions that arise in the classroom, while the superb illustrations found in many adult books will supplement and enrich the materials children are able to read for themselves. The elementary school probably should not be expected to buy many such books, but teachers can be encouraged to seek materials in the adult department of the public library as well as in the children's section.

The selection of books with a wide variety of content is necessary too in the social living program. Supervisors can help teachers use, not only social studies reference materials, but also science and health books, game books, cookbooks, and many others that relate to the area of experience but often fail to find a place in the classroom.

And finally, the problems of helping children read such materials effectively are tremendously important. Many conflicts and maladjustments are likely to arise when teachers expect children to read fluently for information when their reading development is still in the beginning stages. Even after children have advanced to the stage where reading is a useful tool they need specific functional training in study skills which will enable them to read efficiently the materials needed in their current unit of work.

b. The exploration of an area of experience is incomplete unless the factual learnings are supplemented by emotional and esthetic interpretation through music, art, and literature.

Now the informational materials about various peoples are well organized and easy to obtain, while the music, the crafts and fine arts, the poetry and folklore suitable for children are often difficult to find and expensive to buy. So too are the excellent stories *about* life in other times and lands which help children project themselves into another culture through identification

with the characters in the book. Recognition of the value of such materials and help in making them readily available to teachers are important services of the supervisor.

Important too are those supervisory activities which help teachers become acquainted with the best of children's literature and provide only the best in the classroom. The teaching of reading is but half done unless children can hear fine books read aloud by the teacher, can discuss them informally and share their pleasure in their favorite stories, and thus develop from year to year increasingly finer tastes in books.

WHAT LEARNING EXPERIENCES ARE LIKELY TO PROVE DEVELOPMENTAL DURING LATER CHILDHOOD

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The period which lies between babyhood and early adolescence is one that has received the least attention from research workers in psychology or education. Literally thousands of reputable studies have contributed to current understanding of the nature and needs of infancy and early childhood. Recently psychologists, educators, and even the cultural anthropologists have shown a renewed interest in the problem of adolescence. The developmental needs of nine-, ten-, and eleven-year-old children, have not, however, challenged this same thoughtful study. Yet tremendous problems confront children in this period of transition when they are beginning to wonder what it is like to be grown, but who in unexpected ways retain their interests in the active affairs of unrestrained childhood.

The following story is typical of the growing-up process characteristic of this age. A little girl was asked by her mother what kind of party she would like to have to celebrate her eleventh birthday. She replied, "I want my party at night so we can all wear evening clothes." The mother immediately thought, "Yes, seven to nine!" But she said, "That will be all right, and now let's plan what you and your friends will do." The child's eyes glowed with joyful anticipation when she said, "Oh, first we'll play hide-and-seek and then we'll play No Bears Out Tonight." In this game part of the children hide in the dark behind bushes and trees. The others, with great daring, move bravely among the trees shouting at the top of their voices "No bears out tonight." Of course, the bears *are* out and soon

give wild chase to their tormentors. What fun it would be to play No Bears Out Tonight in an evening dress!

What provision can the school make for learning experiences for these children of nine, ten, and eleven years who are at a stage in their development when life seems to run relatively smoothly? The rapid changes which occurred at six and seven have been made, and for a period of about two years both boys and girls seem to grow and develop at the same rate. With the approach of adolescence in girls, physical and glandular changes occur which cause them to mature at a faster rate than the boys, who are still in a stage of childhood while the girls are moving rapidly toward approaching womanhood.

CHARACTERISTICS OF LATER CHILDHOOD

In general, the children in this period of later childhood for whom the school must plan educative experiences have these characteristics.

Physically, they are sturdy and husky. They need relatively little special attention to problems of physical well-being except for minor corrections such as the straightening of teeth. They are usually well because they have gained some immunity from the diseases of early childhood. The structural development during which the bony substance takes the place of cartilage increases their strength. As a result, an extraordinary amount of physical activity with finer and better muscular co-ordinations is possible. Play becomes more strenuous and interest in hunting games and team games increases because children can now stand up under vigorous physical contact with others. Posture is not so good as formerly, and school life may be responsible for this condition.

Socially, children are extending their feeling of belonging into ever widening social circles. They have by this time established a feeling of security within the family group. They seek increasingly to establish the same feeling of security within the school group. They are eager to establish status in a group of their peers. They wish to belong, to be considered a part of

larger and larger groups. While some of them still play along *beside* others, most of them tend to work and play *with* others.

Clubs, secret orders with imposing names, and the like, begin to emerge but mostly for the joy of organizing them, for the purpose of finding out who can belong. These organizations usually die after the initiation ceremony. Organized team games also serve an important social purpose.

Toward the middle of this period, sex differences begin to assume importance in the eyes of the children. Boys are boys and girls are girls. Boys increasingly choose boys as companions and girls choose friends among the girls, a situation which continues until at adolescence both the boys and the girls are confronted with the problem of making adjustments to the other sex.

Boys play harder, tumble, wrestle and are noisy, boisterous, rough, and unkempt. Therefore the girls tend to avoid them. The boys are usually in a hurry. They are disinterested in adults and become actually antagonistic when adults threaten interference with any of their deep-laid plans for action.

They may pretend to dislike girls but often this antagonism is only a bid for their attention. Because girls are maturing faster than boys physically they tend to be interested in older boys, thus irritating those of their own age, who express their irritation in attitudes of indifference or contempt. The problems caused by the recognition of sex differences on the part of the children do not assume significant proportions until the latter part of this period.

Intellectually, children of this age group are widening their outlook and insight. They are alert, active, curious. They have not yet learned to be bored. They are avid for facts and will pore over books in their search for facts. They have to learn by doing and not by listening. Children are increasingly able to associate meanings and relate ideas, to retain these in their memory, and to hold their attention longer to a question under consideration. At this time, interests may be widened and deepened considerably as they can extend over longer periods of time and include more interrelationships.

Children have gained a wealth of meanings and concepts through their eight to ten years of living which enable them to have some understanding of their relationship to their own immediate environment and the relationship of various things about them to each other. At this age, with such a background of experience, they seek to orient themselves in time and space. They want to know what is transpiring outside their own immediate world; their questions reveal interest in lands outside their own. They are interested in knowing how the things they see and use today came to be; they are actively interested in the past.

During this period the children grow increasingly in their ability to think things through in advance; to make plans on the basis of abstract ideas. At eight and nine, children have to be confronted by an immediate situation before they can plan to meet it. Not long ago a teacher visited a third grade where a child needed a cheesebox for a boxcar. Not finding one, he took one which belonged to another child. A discussion developed out of the difficulty which arose as to what the child should have done. The children concluded that he should have asked permission of the other child or waited for another cheesebox. The visiting teacher wished to know of the children what they would do if there were no more cheeseboxes. They told her that they would build a box of wood. Then she asked what they would do if there were no wood, to which one child responded, "We would solve that problem when we came to it." This response expresses precisely the approach of eight- and nine-year-olds, and their general attitude in the solution of problems.

Children of eight and nine years are not inhibited by the need to plan when play period arrives. They scramble into the activity and are happy organizing their play as they move along. But the eleven-year-olds usually wish to know who the chief characters are to be. They prefer to do a little thinking and planning in advance.

As the children proceed from eight to eleven, there is a growing tendency to think more responsibly, to take into consideration more hypotheses, to weigh these more carefully, and to

arrive at conclusions on the basis of more elements in the total situation. Too, there is a tendency to act more as a result of thinking and less upon the basis of impulse.

Most of the children are able to speak fluently and express their ideas clearly. Most of them have some ability to state their ideas in writing. Most of them can read well enough to enjoy the funnies and stories of adventure. Most of them have had enough experience with number to understand how it is related to their lives.

At this age there is increasing interest in organization—in bringing the parts together. This age is supremely important as a time for bringing together into systematic wholes the facts and meanings acquired through living. It has traditionally been the time for acquiring skills in composition, writing, and arithmetic.

SCHOOL PROVISION FOR OPTIMUM DEVELOPMENT

In the light of the characteristics of children of later childhood education is confronted with the problem of what to help them to do in school to further optimum growth.

Children's behavior at any one time depends upon what they are, but what they do determines what they will be. Education must be concerned in what these children actually do. It is impossible to arrange learning experiences with any degree of appropriateness on any other basis.

In Article I of his Creed, John Dewey says:

The Child's own instincts and powers furnish the material and give the starting-point for all education. Save as the efforts of the educators connect with some activity which the child is carrying on of his own initiative independent of the educator, education becomes reduced to a pressure from without. It may indeed, give certain external results, but cannot truly be called educative. Without insight into the psychological structure and activities of the individual the educative process will, therefore, be haphazard and arbitrary. If it chances to coincide with the child's activity it will get a leverage; if it does not it will result in friction or disintegration, or arrest of the child nature.¹

¹ John Dewey, "My Pedagogic Creed," *Journal of the National Education Association*, XVIII (December, 1929), 291-295.

What *are* children of nine, ten, and eleven doing of their own accord, independent of adult guidance? No studies seem to be available which provide the basic data essential to answer this question. The study subsequently reported is an attempt to throw some light on the problem of what children do when engaged for the most part in activities of their own choice.

ACTIVITIES OF CHILDREN OF EIGHT TO ELEVEN YEARS

One hundred and nine students in Education 330 at the University of California at Los Angeles observed and recorded on Saturday, September 21, 1940, the activities of 109 children, 54 girls and 55 boys, ranging in age from 8 years 11 months to 11 years 11 months. The group was composed of 1 eight-year-old, 36 nine-year-olds, 58 ten-year-olds, 15 eleven-year-olds. The group was unselected. The fathers belonged in every walk of life—bankers, physicians, professors, barbers, carpenters, clerks, truck gardeners, street cleaners, and others.

Forty-eight of the 55 boys engaged in strenuous physical activity. They climbed garages, trees, pipes, rocks, and ladders; they rode bicycles, wagons, and scooters; they raced, turned cart wheels, swung on fences, played with dogs and chased cats; they hiked, tussled, skated, dug trenches, fought, rode horseback, and tossed balls; they did chores, gardened, picked beans, mowed lawns, gathered kindling, and cleared vacant lots of weeds. Ten of them engaged in hunting games, such as prisoner's base, spooks, tag, cops and robbers, and keep-away; seventeen of them engaged in team games and sports, such as football, touch football, baseball, kick ball, volleyball, badminton, and ping-pong.

Forty-eight out of 54 girls climbed trees, fences, and porches, ran downhill, walked to the store, and romped with the dog and cat; they jumped up and down, skipped, hopped, whirled, danced, swam, dived, and bathed; they rode tricycles, wagons, and played on the apparatus; they cleaned house, picked figs, washed clothes, watered gardens, milked the goat, picked flowers, and fed chickens. Three played hide-and-seek and five played handball, catch-football, and kick ball.

These reported observations indicate an abundance of physical vitality expended by both boys and girls, with considerable more interest in team games on the part of the boys.

In all there were 80 instances of dramatic play. Forty-two instances of dramatic play were recorded for the boys. Much play of a momentary nature occurred, a boy would suddenly become his hated school-teacher, a juggler, an older boy diving or driving the volleyball, an airplane making a noise, an Indian giving war whoops, his mother by donning her hat, motorcycle officers skidding, a ski-artist. In groups of from two to five the following plays were enjoyed: circus with a dog pulling a wagon in which a cat was chained for a tiger; fort with soldiers in paper hats carrying wooden guns, bombarding a gravel fort with three rocks and an apple core; airplane on a swing; cowboys and Indians; travel in a trailer; playing in a miniature city; parachute jumpers; tow-cars, tree-house, war, cops and robbers, camp life, navy battle, fireman, Indians, midget racers, fencers, airplane crash, burglar, woodsman, playing store, trucks, horses, baseball stars. They also dramatized stories of Wild Bill Hickock and Daniel Boone, and gave a puppet show.

Thirty-eight instances of dramatic play were recorded for the girls. The girls also engaged in play of a momentary nature, such as suddenly becoming an elephant, Tarzana, a movie actor, a well-known neighborhood character, a woman at the telephone, Shafter Baker, the mother, a soldier, a drowning person, an actress, or a friend. In groups of two to six these girls played rodeo, school, house, store, jungle, Lapp girls, travel in Maine, jail, dress-up, cowboys, Indian magician, secretary, Indian in forest looking for game, pirate ship, train, and wedding. Two groups made plays for the neighborhood, one group gave a puppet show while another dramatized *The Wizard of Oz*.

Singly and in small groups the girls played dolls and paper dolls. Dolls are still popular. Some of them were such simple expressions of everyday life experiences with children as this:

The girls take their dolls on an imaginary boat ride to the moon. The recorded conversation follows:

"We'll use this blanket for a boat on our trip to the moon."

"Let me trade you my eye medicine bottle for that green bottle. My doll's eyes are broken!" She makes medicine out of mud and water to prevent seasickness. Medicine is cooked on stove.

They make boat-whistle noises as boat sails; eat lemon drops to prevent being seasick. Dolls get sick. The girls feed them a whole bottle of medicine apiece. "Let's take a nap with the babies. My baby is certainly naughty and I must spank her hard!"

"Will you please pick some redberries for our medicine." "My baby needs some right now." Berries are mixed with water for medicine. Coffee and water are also mixed together for medicine. They pour the coffee medicine into the berry water. "We're experimenting. Remember in 'Edison the Boy,' how he blew up the school?"

Next they take a colander, milk bottle, two pans, two small bottles, green drinking glass and two spoons to sidewalk. They make medicine out of soap and water. As they are filling glass bottles with soapy water, they start to discuss glass-bottom boats.

A common characteristic of dramatic play at this level is seen here where the girls become so interested in making medicine that for a time their "children" are forgotten.

Grandmother gives them a bottle with a little grape juice in it. They add the grape juice to the soapy water to make it "more palatable."

"Is my baby all right?"

"No, she is screaming."

"I will give her some medicine right now."

"What is the matter with our dolls?"

"They have chicken pox, smallpox, mumps, measles, flu, whooping cough and earache." At this point, they left their sick dolls to go for ice cream.

Contrast that with the following illustration of sophisticated doll play which reveals a dawning interest in the other sex.

The two girls were speaking for their dolls who were dressed as young ladies who were expecting boy friends. Most of their time was spent in selecting appropriate clothing for the dolls' activities. One says, "I don't want to see Tony tonight. Tell him to come back in twenty minutes."

The other, "The man I have tonight is dressed sport, so I'll have to wear a sport dress. You have to dress according to how your man is dressed, Sylvia." Play at this level is interspersed with generalizations previously formed.

When boys and girls played together the play centered in cowboys, Indians, pirates, and the like. Rarely did they play house or with dolls.

The boys used wood, boxes, wheels, slats, branches, rocks, gravel, axes, shovels, hammers, saws, and nails to build rabbit hutches, cages for mice, buildings for a town, forts, huts, boats, trailers, club houses, tents, scooters, tool boxes, and airplanes. The girls preferred scissors, paper, paint, branches, blankets, bamboo sticks, magazine pictures, glue, typewriters, cloth, needles and thread, cardboard, wire and flowers, to make paper dolls, clothes for dolls, a puppet show, stage, newspaper, a toy airplane, doll furniture and a wreath of morning-glories.

The nature of the children's curiosity was revealed in the questions they asked.

The boys revealed interest in almost every subject in the 281 questions which they asked. Many of them were of a personal nature.

Do I have to take a bath? To sit all the way through dinner?

To take my yeast now?

When are we going to eat? What are those buns doing on the table?

Did you see me take that drop? Catch that fly? Spit to the post?

Not one question concerned "how do I look?" or "what shall I wear?" Other questions revealed interest in other people, principally their peers:

Have you any hair on your face yet?
Is your Adam's apple bigger than mine?
Why don't you play with us?
Does your mom allow the cat in the house?
What kind of candy do you like?
What kind of car does your dad drive?

But interest in things and ideas predominated:

How long has this war been going on?
How fast do modern tanks go?
If Willkie was cheered by 80,000 people, will they all vote
for him?

What's the news, Dad?
Daddy, what's a democrat? Are you one? Why.
Why does Buster have to have a driver's license?
How is a grizzly bear different from just a bear?
What is that new gadget on the Buick?
What do those E's mean on the automobile license plates?
How can you tell whether that pigeon is a male?
How does a gun shoot a bullet?
If the ground is soft will the foundation of a building sink?
Does a bee die when he stings?
What does the word *vehicle* mean?
Who is Henry Wallace?
Can a dragon fly bite?
Is Rome in the Alps?
Can all women have babies?

The girls asked 191 questions and the great majority showed an interest in personal matters:

Where is my hat? My book? My belt?
May I have a new pair of shoes? Some money for candy?
A new dress?
May I go to the show? To Mary's? To town?
May I help clean house? Bake a cake? Wash the baby?
Is Daddy taking me to the show?
May I wear my sailor dress?
Do I look nice?

Will you brush my hair shiny like Jane's?

Many questions reveal intense interest in other human beings, especially in their peers:

Have you brothers and sisters? How many?

Why did Mr. Lee die?

Do you like Betty?

Do you like Betty better than you do me?

Are you in junior high school?

Why do you have hair on your arms?

Have you been crying? Why?

Among all of the questions there were but three which seemed to show an interest in an impersonal topic.

Is Harvard a very large college?

Do you know how long the Pennsylvania Turnpike Tunnel is?

What is in the fire extinguisher?

Even at such an early age women seem to confine their questions to the personal and social rather than to things and ideas! Is this the effect of culture on girls? At least, this is a variant which merits further investigation.

Some children evinced interest in scientific information. Interest in mechanical science predominated among the boys. They undertook to find out why electrical trains run, why airplanes fly, how motors operate, whether boats and cars are operated alike, how a typewriter works, how torpedoes are made and who invented them, how a spoke-tightener works, how gyroscopes work, and experimented with pulleys, electricity, clocks, and car motors. Interests in natural science were focused on garden plants, stones, insects, pits of various fruits, setter puppies, and human reproduction. Studying the contours of a country to make a relief map and measuring stream flow show interest in geographical science. Digging for Indian relics and for the bones of prehistoric animals and men indicate an interest in anthropology.

Only eleven instances of girls' interest in science were recorded. The girls preferred natural science, such as a study

of plants, gardens, insects, seeds, birds, and dog breeding. A few girls interested themselves in car automobile motors, and instruments in the doctor's office. A few others made and operated toy trains and airplanes. One of them wanted to know why it made a difference whether or not you followed a recipe in cooking.

During the day each student either through a child's conversation or by means of direct interrogation discovered that the boys aspire to do an to be almost everything from a great scientist to the beauty parlor operator who arranges the hair of motion picture stars. Inventors, explorers, motor-police, airplane pilots, junior G-men, football players and big league ball players are the occupations chosen most often. One of the fifty-five had a desire to stop all wars. The girls too have varied wishes from desiring to be the mother of children to making people good and helping the poor. Some of their choices were hostess in an airplane, nurse, teacher, motion picture star, horse breeder, ice-skater, and traveler.

Both boys and girls associated subjects with school activities, the boys indicating in the order of preference: arithmetic, reading, spelling, drawing, history, geography; the girls preferred reading, art, arithmetic, spelling, French, music. For their out-of-school activities boys prefer sports, "playing-around," construction. The girls like to go to movies, play with the boys, engage in dramatic play, visit, engage in sports, draw, and dance. In playing with other children the boys prefer team games, chasing games, various forms of dramatic play; the girls prefer chasing games such as hide-and-seek, and dramatic play, tag, and guessing games.

In reading, boys displayed interest in books of daring and adventure, such as *Treasure Island*, *Doctor Doolittle*, *Tom Sawyer*. Girls preferred milder, less daring works, such as Nancy Drew books, *Mr. Popper's Penguins*, The Alcott Books.

In radio programs, the boys and girls both liked "The Lone Ranger," "Henry Aldrich," and "Strange As It May Seem," with their preference expressed in that order. "The Green Hornet,"

and "I Love a Mystery" also received votes. The girls apparently liked "Orphan Annie."

In motion picture choices, there was as much difference as in books, the boys liking best "The Sea Hawk," "Robin Hood," "Boomtown," "Gulliver's Travels," while the girls preferred the more imaginary "Pinocchio," "Snow White," and "The Wizard of Oz." Some of the older ones liked "Gone With the Wind." Out of 109 children more than one-third of them, 20 boys and 19 girls, attended a motion picture on Saturday afternoons.

SUMMARY AND CONCLUSIONS

From this brief study based on observation of children of this age it is apparent that out of school they engage in activities which provide the school with important clues for the selection of learning experiences to include in the curriculum. All of the observers reported:

1. An extraordinary amount of strenuous physical activity characterized by an almost continual exercise of the muscles of the body in chasing and team games.
2. Thrilling dramatic-play activities by both girls and boys. When girls and boys play together their play is usually based upon some vicarious experience about which they have read or heard. These experiences must be unusually thrilling, adventurous, or mysterious. When girls play singly or together they are likely to engage in doll-play of some kind. For the school, such areas of experience as studies of Indian, Chinese, Mexican, colonial or pioneer life provide rich opportunity for the boys to go forth on adventure and for the girls to take care of the family and home in ways consonant with the usual play pattern.
3. Construction activities, mostly related to dramatic play enterprises with much diversity in the materials used by boys and girls. Sometimes interest in constructing properties assumes first importance and the play is forgotten.

There is a growing tendency to be able to postpone play until the properties are finished.

4. Satisfying curiosity through firsthand experimentation, reading, and by asking questions of others. Interest in mechanical and natural science is extended. Reading stories of adventure by boys and of daily experiences by girls are ways of satisfying curiosity.
5. Sharing experiences and communicating with each other, involving skill in oral and written expression.
6. Expressing esthetically thoughts and feelings through a medium, such as paint, crayola, words, musical sounds, or bodily movements. As esthetic expression offers a splendid release from tension generated by glandular secretions, opportunities for such expression should increasingly be provided as adolescence approaches.

If these activities represent the outstanding worth-while out-of-school experiences in which the children engage, the school must make provision for the widening and deepening of all of them. This it does in two ways. First, by arranging for wide learning experiences in major areas of social living, where through the pursuit of on-going, related interests involving as they do physical activity, dramatic play, construction, and all types of activity, they form an integral part of a whole dynamic experience; and, secondly, by providing additional experiences in each type of activity. For example, a major learning experience centered in boats and their activities would involve an integration of experiences in construction, dramatic play, investigation, physical activity, sharing, communicating, and expressing esthetically. But over and beyond the major experiences with boats, school life should offer experiences in physical activity, reading, science, oral and written expression, art, and music, *as such*.

Many of the major areas of experience in which children of these ages are now engaging in school possess elements thrilling

enough to interest these children and to insure physical, social, and intellectual growth. Boats, sailing to other countries whose people are strange and whose products are interesting; trains roaring through states carrying fascinating produce; Indians, wild and peaceful, with their thrilling ceremonials and customs; the Aztecs, with their legends and blood ceremonial; the Indians of South America moving through the rubber forest in the face of jaguars, black panthers, and boa constrictors to gather rubber; the gaucho of the Argentine, the vaquero of Early California with his rodeos and matanzas; Mexican life, interspersed with cockfights, bull fights and the like; Chinese life; pioneer life; westward movement, including the gold rush—all of these abound with thrills and adventure for an age which revels in bloodshed and battle when the cause is just, and offer abundant opportunities for physical activity, dramatic play, construction, the satisfaction of curiosity, sharing, communicating and esthetic expression through which each child, boy or girl, may through wise teacher-guidance be well on his way to what he may become physically, socially, and intellectually.

PREVENTION OF TENSIONS CAUSED BY INADEQUACIES OF THE SCHOOL PLANT

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The quality of the school environment determines to a great extent the effectiveness with which growth and development of children take place. The total school environment and the interaction of the child with it determine the kind of learning experience he will have. One aspect of the school plant which deserves special consideration is the classroom. The child spends the greatest number of hours of the school day there. Even mildly disturbing classroom conditions may have an important cumulative ill-effect upon his development.

Only a few of the purely physical conditions common to all classrooms will be considered in this article. Ways and means will be suggested to control such environmental factors as poor lighting conditions, inadequate space, and poor acoustical qualities, in order to lessen the pressures and tensions on children and teachers. By lessening these stresses and strains an improved instructional program can be provided.

PROPER CLASSROOM LIGHTING

An environmental factor of paramount significance which most directly affects the work and health of both teachers and pupils is the lighting of the classroom. Whether or not the means of illumination be natural or artificial, it may be the cause of intense pressure on children. Recent research in the field of illumination has revealed significant information concerning good lighting. Scientists believe that a person with normal vision, under adequate lighting conditions uses considerable bodily energy in the process of seeing. This consumption of energy is increased when the vision is poor and the illumination

inadequate. Inadequate vision causes eyestrain which results in bodily fatigue, headaches, and nervous tensions. Proper lighting conditions will alleviate these physical disturbances.

Research carried on by the General Electric Company, dealing with the measurement of nervous muscular tension due to the task of seeing under varying lighting conditions, shows that persons who use their eyes under unsatisfactory lighting conditions suffer from nervousness, indigestion, and other troubles apparently unrelated to the cause.

Much of the learning process is dependent upon the eyes which, in turn, are greatly affected by the conditions for seeing under which they work. The school is obligated to create as nearly perfect conditions for seeing as possible. The tensions resulting from poor lighting conditions in a classroom show themselves continuously in the behavior patterns of the pupils. Short span of attention, restlessness, unnecessary noisiness, poor habits of work are types of behavior patterns which frequently result from strains induced by inadequate illumination. Reading difficulties which may be attributed to poor lighting have been studied scientifically. Indisputable data are now available giving the results of controlled tests which measure such important reading factors as visual acuity, contrast sensitivity, nervous muscular tension, frequency of blinking, decrease in heart rate, and decrease in convergence of eye muscles. All these tests verify the fact that poor conditions for seeing create great classroom pressures and physical strains, resulting in poor posture, eyestrain, headaches, indigestion, nervousness, and general bodily fatigue, which in turn often result in reading difficulties.

Classroom situations should be checked for proper conditions of lighting. Since school administrators are not illuminating engineers some simple and nontechnical criteria are needed with which to evaluate conditions of lighting in classrooms.

A criterion for judging conditions for seeing in the classroom as important as how much light is available in terms of foot-candle intensity is the quality of lighting under which persons do seeing tasks effectively. The quality of the lighting is of as

much concern as the quantity of lighting. Glare in any of its forms must be overcome to assure proper lighting conditions. Contrast of brightness is another factor which must be taken into consideration as one of the problems of classroom illumination. An unshaded south window contrasted to the surface of a blackboard represents a high ratio of brightness. An unshaded light globe contrasted with a blackboard offers a high and undesirable degree of contrast. Obviously such conditions are intolerable.

In many situations needing correction great improvement can be made with little cost. There is no excuse for unshaded globes in classrooms. The pressures that are exerted on children in classrooms from this one source alone is immeasurable. Lighting fixtures that will help to overcome this condition can be purchased for a few dollars. Direct sunlight from unshaded windows that reflects on desk tops causes permanent injury to the eyes, many behavior problems, and much ineffective study. The valuable light in a room comes from windows placed high in the wall. Ceilings should be painted with a flat white, casein paint. Lights should be regulated to come from the tops of the windows. Brightness ratios will thus be decreased and conditions for seeing will be vastly improved.

NEED FOR SUFFICIENT SPACE

A second environmental factor which may either increase or decrease the pressures in the classroom is the amount of available space. One of the most important needs of children is to develop the ability to get along with other people. This ability can be developed only in an environment that permits normal human interaction to take place.

Enough space is needed to provide freedom of movement. Constant unavoidable getting in one another's way builds up tensions and negative behavior patterns in any group. Space to store objects is needed. It probably costs less in the long run to provide adequate storage space than it does to provide instructional supplies that are half-used, torn, or wasted because

such space is not available. Adequate and accessible storage space also reduces the confusion that is created by having all supplies piled in one small cupboard where children go for materials.

Children need space to carry on work in a classroom. Provision for the great variety of activities which in themselves lessen pressure is possible if a teacher has room to provide numerous work centers. Just as a child needs room to work with others, so he needs room for individual enterprises. Space is needed for rhythmic activities, dramatic play, and construction.

In planning new buildings, classrooms should be large. Outdoor space adjacent to one-story classrooms is highly desirable. Furniture that takes less room and is easily movable, such as tables and chairs, is preferable to screwed-down individual desks. The teachers who will use the rooms can frequently give invaluable help in planning them. The teaching staff has many good ideas about functional classroom arrangement which can be used by the architect.

Many improvements can be made in the ordinary classroom to provide good working conditions for children. Individual desks can be placed on movable strips; rows of desks can be placed together; inexpensive storage space can be provided; small work centers for three or four children can be established in those corners which now are unused; many activities of instructional nature can be carried on in the out of doors where there is no premium on floor space.

CLASSROOM ACOUSTICS

A third environmental factor in classrooms which causes unnecessary pressure is noise. Modern classroom techniques have placed new standards on the amount and kind of noise children make in the course of a normal school day. Certain kinds of classroom noises are indicative of good working conditions. The rigid, soundless, hear-a-pin-drop type of classroom situation that was standard a decade ago is rarely encountered. Behavior patterns, work habits, physical health, and academic standards are all greatly influenced by noise. Yet many build-

ings and classrooms have no better provision for acoustical properties than hard-plaster walls and ceilings. When many children use these rooms as a busy workshop, the noise causes severe pressure.

Proper acoustical treatment can be provided in new construction without raising building costs. Furthermore, existing buildings can be given such treatment at a reasonable figure. There is nothing particularly baffling about modern methods of absorption of sound. When it is absorbed it simply disappears and no longer continues to bounce about between hard, non-absorbent surfaces, making itself objectionable and distracting. Sound-absorbing materials can be purchased reasonably and can be installed on any kind of surface.

There are many other classroom environmental factors which exert pressure on children. Administrators are fulfilling their obligations to those who depend upon them for guidance when they recognize these factors and set about on a program designed to correct and to prevent environmental inadequacies.

If school plant construction is to reflect the thoughtful planning that is necessary to provide classroom environment which eliminates these unnecessary and costly pressure conditions, thoughtful consideration must be given to these problems. This problem is one of great importance and offers an important field of work to one genuinely concerned about the growth and development of children.

UTILIZING THE SCHOOL ENVIRONMENT¹

DELLA A. DUDLEY, *Teacher, Desert Queen School,
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The school that I teach is known as the smallest school in the biggest county in the United States. At present there are six pupils: two in the fourth, one in the fifth, one in the seventh, and two in the eighth grade. The county superintendent's office sends us at the beginning of each school year our supplies of pencils, paper, and so on. The county librarian makes a selection of the textbooks we need and also sends a small library for the use of parents as well as pupils. For the rest we depend upon ourselves and our environment. We have no school board to appeal to, since we are what is known as an emergency school.

The government, in order to protect the quaint old Joshua trees in our region, set aside about one hundred thousand acres of land as a national monument. Before this was done the land had been thrown open to homesteaders, and most of the pupils of Desert Queen School are children of these homesteaders. The country near the school is wild, rough, and very mountainous, for it is situated in the San Bernardino Mountains. The school itself is forty-three hundred feet above the sea. The climate is delightful, though rainfall is scanty.

Life is a continual struggle, and it is hard for most of the parents to get enough food for their growing, healthy youngsters. Clothing is considered from the standpoint, not of fashion, but of warmth. Houses are most primitive in structure and furnishings. Oil lamps and wood stoves are what we use.

I have taken some time to tell you about our surroundings, for otherwise you could not realize our problems, or appreciate what the children have accomplished. Making use of our

¹ This article won first prize among hundreds from all sections of the nation in the *Instructor's* Second Environment Contest, planned to secure reports on how the school uses the resources and facilities of its surroundings in the daily program. The article was printed in the issue of the *Instructor* for June, 1941.

environment grew out of my desire to help the children realize in what a beautiful place they live, and how fortunate any child is who can live here and still have a school.

In connection with our social-science work we have taken many trips. We can see mountain ranges, lone peaks, valleys, gorges, plains, tablelands. When we want to know about things connected with water we go to the dam, which holds back a body of water dignified by the name of Keys Lake. There the fourth-grade children find islands, isthmuses, capes, peninsulas—whatever they are studying.

One day the children gathered clay from the bed of a dry stream and took it to school. Then they made Indian bowls and pipes, and gifts for mothers and friends. The older children did research work to find out how the Indians had baked their pottery clay. Then they constructed Indian ovens and baked the fourth- and fifth-grade work, adding Egyptian tablets they had made for themselves. They went to a friendly neighbor to ask about the arrowheads and broken bits of pottery they had found, and he told them of the Indians who once lived here. Then the children dressed as Indians and played at living in Indian caves, and the fifth-grade boy brought stone tools he had made.

There are many minerals in these rocks. Again we went to our friendly neighbor, who explained their uses and values to us, and took us to see a gold mine that once yielded two million dollars' worth of ore. We gathered dark sand from a dry stream and with the aid of a magnet we took up the iron. The arithmetic class offered to weigh it and found that 50 per cent of the sand is iron. We learned that this iron is magnetized. We found granite, mica, and sulphur specimens, and started a rock collection.

In visiting our school you must not be frightened if some strange-looking animal is brought out for you to admire. We have learned about the animal and vegetable life of California from a series of science books which the State Department of Education sent us. We always turn to these books to find out about the insects and animals that we see.

Plant life is endless in its variety. We have found, so far, eight kinds of cacti to put in our cactus garden. In the spring we know we shall have some beautiful blooms. Some of these we shall try to preserve by dipping them in paraffin, and perhaps we shall make small desert gardens to send to some city children who are not so fortunate as we are.

Armed with pencils and paper, we frequently go forth and try to put on paper the beauty around us. Stories and poetry are written to go with the pictures, and it is not work, just fun, to write. We have a book in which we keep our poems. It is so easy to imagine fairies and gnomes living among these rocks and shrubs that even the older children forbear laughing when the small girls read their fancies to us. I think that this study has done more to add to their vocabulary than anything else.

Our schoolroom was pleasant but not "deserty" enough, the children said. We gathered wild plants to decorate the room. We found the bottle plant with its exquisite colorings of brown, fawn, gold, and rust, and its dark red seed clusters. We added to them the desert buckwheat. It still had its red leaves and red-brown seeds. Then we found the Spanish oak with its acorns and leaves of green.

Our bookcase tops looked bare but the children brought in quantities of desert gourds. These are round, about three to four inches in diameter. We used some as flowerpots. We cut off an end and hollowed out the gourd. Then we cut a small hole in the bottom, through which we put a piece of sponge. We filled the gourd with sand, set it over water, and planted in it the seeds of the gourd. These came up rapidly and soon we had a lovely gray-green vine that spilled itself all over the top of our bookcases.

Another great source of supply for us is stalks of the yucca known as Our Lord's Candle. The stalks vary from one to three inches in diameter, and are often nine feet tall. We gathered at least a hundred of them. The older children made tables which we needed badly. They used the yucca stalks for the legs and sides, and plywood for the top. These they stained and they are

attractive and most useful. The seventh-grade boy made airplanes from the stalks.

Early in November the question of Christmas came up. It was voted to use the yucca stalks to make gifts. These stalks are very light and easily handled. A jig saw and a penknife will accomplish wonders. The boys made tie holders for their older brothers and fathers, and workbaskets for their mothers. The smaller children made doll furniture—beds, dressers, chairs, tables, couches, in fact, everything for a doll house; and painted the furniture with poster paint.

We are very active Red Cross members. We have, indeed, a 100 per cent membership.

After we made some toys the children sent a box of them to a little girl in China. Then for the children's ward of our county hospital the older boys and girl made a dollhouse out of plywood and the younger children put in several sets of furniture. They gathered winter desert flowers, put them in vases made of gourds, and sent them to friends in the city, who thought they were beautiful. In doing such things we feel so rich! We have something to give that is well worth giving and that brings joy to the receiver.

We have all the land that we want to play in but we must prepare it ourselves. This year we made a badminton court that fills us with pride. The boys dug up the roots of shrubs and the small girls pulled these away and smoothed off the ground. All gathered small stones to make the outlines. We now have a big playground for all kinds of games, and a croquet court and volleyball court, as well as our badminton court.

Never feel sorry for us! We are the richest children in the world, for we have the whole desert as our heritage. It is true we rarely see a movie, for such things are miles from here; we can't window-shop and daydream over toys displayed; but we have caves in which to hide and play Indian, bushes for hide-and-seek, and the freedom that every child yearns for and so few possess. We salute our environment!

